Amendments to the claims DT01 Rec'd PCT/PTC

DT01 Rec'd PCT/PTC 1 6 DEC 2004

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This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Claims**

## What is claimed is:

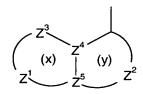
Claims 1-16 (Cancelled).

17. (New) A compound of formula (I) or a pharmaceutically acceptable derivative thereof:

$$R^{A}$$
 AB( $CH_2$ )<sub>n</sub>  $N_2$   $N_3$   $N_3$   $N_4$   $N_4$   $N_5$   $N_6$   $N_7$   $N_8$   $N_8$ 

wherein:

R<sup>A</sup> is an optionally substituted bicyclic carbocyclic or heterocyclic ring system of structure:



containing 0-3 heteroatoms in each ring in which:

at least one of rings (x) and (y) is aromatic; one of  $Z^4$  and  $Z^5$  is C or N and the other is C;  $Z^3$  is N, NR<sup>13</sup>, O, S(O)<sub>x</sub>, CO, CR<sup>1</sup> or CR<sup>1</sup>R<sup>1a</sup>;

 $Z^1$  and  $Z^2$  are independantly a 2 or 3 atom linker group each atom of which is independently selected from N, NR<sup>13</sup>, O, S(O)<sub>X</sub>, CO, CR<sup>1</sup> and CR<sup>1</sup>R<sup>1a</sup>; such that each ring is independently substituted with 0-3 groups R<sup>1</sup> and/or R<sup>1a</sup>;

one of  $Z^1$ ,  $Z^2$ ,  $Z^3$ ,  $Z^4$  and  $Z^5$  is N, one is  $CR^{1a}$  and the remainder are CH , or one of  $Z^1$ ,  $Z^2$ ,  $Z^3$ ,  $Z^4$  and  $Z^5$  is  $CR^{1a}$  and the remainder are CH;

 $R^1$  and  $R^{1a}$  are independently hydrogen; hydroxy;  $(C_{1-6})$ alkoxy optionally substituted by  $(C_{1-6})$ alkoxy, amino, piperidyl, guanidino or amidino any of which is optionally N-substituted by one or two  $(C_{1-6})$ alkyl, acyl or  $(C_{1-6})$ alkylsulphonyl groups,  $CONH_2$ , hydroxy,  $(C_{1-6})$ alkylthio, heterocyclylthio, heterocyclyloxy, arylthio,

aryloxy, acylthio, acyloxy or  $(C_{1-6})$ alkylsulphonyloxy;  $(C_{1-6})$ alkoxy-substituted $(C_{1-6})$ alkyl; hydroxy  $(C_{1-6})$ alkyl; halogen;  $(C_{1-6})$ alkyl;  $(C_{1-6})$ alkylthio; trifluoromethyl; trifluoromethoxy; cyano; carboxy; nitro; azido; acyl; acyloxy; acylthio;  $(C_{1-6})$ alkylsulphonyl;  $(C_{1-6})$ alkylsulphoxide; arylsulphonyl; arylsulphoxide or an amino, piperidyl, guanidino or amidino group optionally N-substituted by one or two  $(C_{1-6})$ alkylsulphonyl groups, or when  $Z^3$  and the adjacent atom are  $CR^1$  and  $CR^{1a}$ ,  $R^1$  and  $R^{1a}$  may together represent  $(C_{1-2})$ alkylenedioxy; provided that  $R^1$  and  $R^{1a}$ , on the same carbon atom are not both optionally substituted hydroxy or amino;

## provided that

(i) when RA is optionally substituted quinolin-4-yl:

it is unsubstituted in the 6-position; or

it is substituted by at least one hydroxy ( $C_{1-6}$ )alkyl, cyano or carboxy group

at the 2-, 5-, 6-, 7- or 8-position; or

it is substituted by at least one trifluoromethoxy group; or

R<sup>1</sup> and R<sup>1a</sup> together represent (C<sub>1-2</sub>)alkylenedioxy;

(ii) when R<sup>A</sup> is optionally substituted quinazolin-4-yl, cinnolin-4-yl, 1,5-naphthyridin-4-yl, 1,7-naphthyridin-4-yl or 1,8-naphthyridin-4-yl:

it is substituted by at least one hydroxy ( $C_{1-6}$ )alkyl, cyano or carboxy group at the 2-, 5-, 6-, 7- or 8-position as available; or

it is substituted by at least one trifluoromethoxy group; or R<sup>1</sup> and R<sup>1a</sup> together represent (C<sub>1-2</sub>)alkylenedioxy;

 $\mathsf{R}^2$  is hydrogen, or  $(\mathsf{C}_{1\text{-}4})$ alkyl or  $(\mathsf{C}_{2\text{-}4})$ alkenyl optionally substituted with 1 to 3 groups selected from: amino optionally substituted by one or two  $(\mathsf{C}_{1\text{-}4})$ alkyl groups; carboxy;  $(\mathsf{C}_{1\text{-}4})$ alkoxycarbonyl;  $(\mathsf{C}_{1\text{-}4})$ alkylcarbonyl;  $(\mathsf{C}_{2\text{-}4})$ alkenyloxycarbonyl;  $(\mathsf{C}_{2\text{-}4})$ alkenyloxycarbonyl;  $(\mathsf{C}_{2\text{-}4})$ alkenylcarbonyl; aminocarbonyl wherein the amino group is optionally substituted by hydroxy,  $(\mathsf{C}_{1\text{-}4})$ alkyl, hydroxy $(\mathsf{C}_{1\text{-}4})$ alkyl, aminocarbonyl $(\mathsf{C}_{1\text{-}4})$ alkyl,  $(\mathsf{C}_{2\text{-}4})$ alkenyl,  $(\mathsf{C}_{1\text{-}4})$ alkylsulphonyl, trifluoromethylsulphonyl,  $(\mathsf{C}_{2\text{-}4})$ alkenylsulphonyl,  $(\mathsf{C}_{2\text{-}4})$ alkenylcarbonyl; cyano; tetrazolyl; 2-oxo-oxazolidinyl optionally substituted by R^{10}; 3-hydroxy-3-cyclobutene-1,2-dione-4-yl; 2,4-thiazolidinedione-5-yl; tetrazol-5-ylaminocarbonyl; 1,2,4-triazol-5-yl optionally substituted by R^{10}; 5-oxo-1,2,4-oxadiazol-3-yl; halogen;  $(\mathsf{C}_{1\text{-}4})$ alkylthio; trifluoromethyl; hydroxy optionally substituted by  $(\mathsf{C}_{1\text{-}4})$ alkylcarbonyl,  $(\mathsf{C}_{2\text{-}4})$ alkenyl,  $(\mathsf{C}_{2\text{-}4})$ alkoxycarbonyl,  $(\mathsf{C}_{1\text{-}4})$ alkylcarbonyl,

(C<sub>2-4</sub>)alkenyloxycarbonyl, (C<sub>2-4</sub>)alkenylcarbonyl; oxo; (C<sub>1-4</sub>)alkylsulphonyl; (C<sub>2-</sub>

<sub>4</sub>)alkenylsulphonyl; or  $(C_{1-4})$ aminosulphonyl wherein the amino group is optionally substituted by  $(C_{1-4})$ alkyl or  $(C_{2-4})$ alkenyl;

 $\mathsf{R}^3$  is hydrogen; or  $\mathsf{R}^3$  is in the 2-, 3- or 4-position and is: trifluoromethyl; carboxy;  $(\mathsf{C}_{1-6})$ alkoxycarbonyl;  $(\mathsf{C}_{2-6})$ alkenyloxycarbonyl; aminocarbonyl wherein the amino group is optionally substituted by hydroxy,  $(\mathsf{C}_{1-6})$ alkyl, hydroxy( $\mathsf{C}_{1-6})$ alkyl, aminocarbonyl( $\mathsf{C}_{1-6})$ alkyl, ( $\mathsf{C}_{2-6})$ alkenyl, ( $\mathsf{C}_{1-6})$ alkylsulphonyl, trifluoromethylsulphonyl, ( $\mathsf{C}_{2-6})$ alkenylsulphonyl, ( $\mathsf{C}_{1-6})$ alkylcarbonyl, ( $\mathsf{C}_{1-6})$ alkenyloxycarbonyl or ( $\mathsf{C}_{2-6})$ alkenylcarbonyl and optionally further substituted by ( $\mathsf{C}_{1-6})$ alkyl, hydroxy( $\mathsf{C}_{1-6})$ alkyl, aminocarbonyl( $\mathsf{C}_{1-6})$ alkyl or ( $\mathsf{C}_{2-6})$ alkenyl; cyano; tetrazolyl; 2-oxooxazolidinyl optionally substituted by  $\mathsf{R}^{10}$ ; 3-hydroxy-3-cyclobutene-1,2-dione-4-yl; 2,4-thiazolidinedione-5-yl; tetrazol-5-ylaminocarbonyl; 1,2,4-triazol-5-yl optionally substituted by  $\mathsf{R}^{10}$ ; or 5-oxo-1,2,4-oxadiazol-3-yl; or ( $\mathsf{C}_{1-4}$ )alkyl or ethenyl optionally substituted with any of the substituents listed above for  $\mathsf{R}^3$  and/or 0 to 2 groups  $\mathsf{R}^{12}$  independently selected from:

halogen; (C<sub>1-6</sub>)alkylthio; trifluoromethyl; (C<sub>1-6</sub>)alkoxycarbonyl; (C<sub>1-</sub> 6)alkylcarbonyl; (C2-6)alkenyloxycarbonyl; (C2-6)alkenylcarbonyl; hydroxy optionally substituted by  $(C_{1-6})$ alkyl,  $(C_{2-6})$ alkenyl,  $(C_{1-6})$ alkoxycarbonyl,  $(C_{1-6})$ alkylcarbonyl, (C<sub>2-6</sub>)alkenyloxycarbonyl, (C<sub>2-6</sub>)alkenylcarbonyl or aminocarbonyl wherein the amino group is optionally substituted by (C<sub>1-6</sub>)alkyl, (C<sub>2-6</sub>)alkenyl, (C<sub>1-</sub> 6)alkylcarbonyl or (C<sub>2-6</sub>)alkenylcarbonyl; amino optionally mono- or disubstituted by (C<sub>1-6</sub>)alkoxycarbonyl, (C<sub>1-6</sub>)alkylcarbonyl, (C<sub>2-6</sub>)alkenyloxycarbonyl, (C<sub>2-6</sub>) 6)alkenylcarbonyl, (C<sub>1-6</sub>)alkyl, (C<sub>2-6</sub>)alkenyl, (C<sub>1-6</sub>)alkylsulphonyl, (C<sub>2-6</sub> 6) alkenylsulphonyl or aminocarbonyl wherein the amino group is optionally substituted by (C<sub>1-6</sub>)alkyl or (C<sub>2-6</sub>)alkenyl; aminocarbonyl wherein the amino group is optionally substituted by (C<sub>1-6</sub>)alkyl, hydroxy(C<sub>1-6</sub>)alkyl, aminocarbonyl(C<sub>1-</sub> 6)alkyl, (C<sub>2-6</sub>)alkenyl, (C<sub>1-6</sub>)alkoxycarbonyl, (C<sub>1-6</sub>)alkylcarbonyl, (C<sub>2-</sub> 6)alkenyloxycarbonyl or (C2-6)alkenylcarbonyl and optionally further substituted by (C<sub>1-6</sub>)alkyl, hydroxy(C<sub>1-6</sub>)alkyl, aminocarbonyl(C<sub>1-6</sub>)alkyl or (C<sub>2-6</sub>)alkenyl; oxo; (C<sub>1-6</sub>) 6)alkylsulphonyl;  $(C_{2-6})$ alkenylsulphonyl; or  $(C_{1-6})$ aminosulphonyl wherein the amino group is optionally substituted by (C<sub>1-6</sub>)alkyl or (C<sub>2-6</sub>)alkenyl; or

R<sup>3</sup> is in the 2-position and is oxo; or

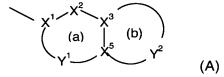
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m R}^3$  is in the 3-position and is fluorine, amino optionally substituted by a group selected from hydroxy, (C<sub>1-6</sub>)alkylsulphonyl, trifluoromethylsulphonyl, (C<sub>2-6</sub>)alkenylsulphonyl, (C<sub>1-6</sub>)alkylcarbonyl, (C<sub>2-6</sub>)alkenylcarbonyl, (C<sub>1-6</sub>)

 $_{6}$ )alkoxycarbonyl, ( $C_{2-6}$ )alkenyloxycarbonyl, ( $C_{1-6}$ )alkyl and ( $C_{2-6}$ )alkenyl, wherein a ( $C_{1-6}$ )alkyl or ( $C_{2-6}$ )alkenyl moiety may be optionally substituted with up to 2 groups R<sup>12</sup>, or hydroxy optionally substituted as described above for R<sup>12</sup> hydroxy; in addition when R<sup>3</sup> is disubstituted with a hydroxy or amino containing substituent and carboxy containing substituent these may together form a cyclic ester or amide linkage, respectively;

R<sup>4</sup> is a group -U-R<sup>5</sup> where

U is selected from CO, SO2 and CH2 and

R<sup>5</sup> is an optionally substituted bicyclic carbocyclic or heterocyclic ring system (A):



containing up to four heteroatoms in each ring in which

at least one of rings (a)and (b) is aromatic;

X<sup>1</sup> is C or N when part of an aromatic ring, or CR<sup>14</sup> when part of a non-aromatic ring;

 $\rm X^2$  is N, NR<sup>13</sup>, O, S(O)<sub>X</sub>, CO or CR<sup>14</sup> when part of an aromatic or non-aromatic ring or may in addition be CR<sup>14</sup>R<sup>15</sup> when part of a non aromatic ring;

X<sup>3</sup> and X<sup>5</sup> are independently N or C;

 $Y^1$  is a 0 to 4 atom linker group each atom of which is independently selected from N, NR<sup>13</sup>, O, S(O)<sub>X</sub>, CO and CR<sup>14</sup> when part of an aromatic or non-aromatic ring or may additionally be CR<sup>14</sup>R<sup>15</sup> when part of a non aromatic ring;

 $Y^2$  is a 2 to 6 atom linker group, each atom of  $Y^2$  being independently selected from N, NR<sup>13</sup>, O, S(O)<sub>X</sub>, CO, CR<sup>14</sup> when part of an aromatic or non-aromatic ring or may additionally be CR<sup>14</sup>R<sup>15</sup> when part of a non aromatic ring;

each of R<sup>14</sup> and R<sup>15</sup> is independently selected from: H;  $(C_{1-4})$ alkylthio; halo; carboxy( $C_{1-4}$ )alkyl; halo( $C_{1-4}$ )alkoxy; halo( $C_{1-4}$ )alkyl; ( $C_{1-4}$ )alkyl; ( $C_{2-4}$ )alkenyl; ( $C_{1-4}$ )alkoxycarbonyl; formyl; ( $C_{1-4}$ )alkylcarbonyl; ( $C_{2-4}$ )alkenyloxycarbonyl; ( $C_{2-4}$ )alkenyloxycarbonyl; ( $C_{1-4}$ )alkylcarbonyloxy; ( $C_{1-4}$ )alkoxycarbonyl( $C_{1-4}$ )alkyl; hydroxy; hydroxy( $C_{1-4}$ )alkyl; mercapto( $C_{1-4}$ )alkyl; ( $C_{1-4}$ )alkoxy; nitro; cyano; carboxy; amino or aminocarbonyl optionally substituted as for corresponding substituents in R<sup>3</sup>; ( $C_{1-4}$ )alkylsulphonyl; ( $C_{2-4}$ )alkenylsulphonyl; or aminosulphonyl wherein the amino group is optionally mono- or di-substituted by ( $C_{1-4}$ )alkyl or ( $C_{2-4}$ )alkenyl; aryl; aryl( $C_{1-4}$ )alkyl; aryl( $C_{1-4}$ )alkoxy or

R<sup>14</sup> and R<sup>15</sup> may together represent oxo;

each R<sup>13</sup> is independently H; trifluoromethyl;  $(C_{1-4})$ alkyl optionally substituted by hydroxy,  $(C_{1-6})$ alkoxy,  $(C_{1-6})$ alkylthio, halo or trifluoromethyl;  $(C_{2-4})$ alkenyl; aryl; aryl  $(C_{1-4})$ alkyl; arylcarbonyl; heteroarylcarbonyl;  $(C_{1-4})$ alkyl; arylcarbonyl; heteroarylcarbonyl; heteroarylcarbonyl;

4)alkoxycarbonyl; ( $C_{1-4}$ )alkylcarbonyl; formyl; ( $C_{1-6}$ )alkylsulphonyl; or aminocarbonyl wherein the amino group is optionally substituted by ( $C_{1-4}$ )alkoxycarbonyl, ( $C_{1-4}$ )alkylcarbonyl, ( $C_{2-4}$ )alkenyloxycarbonyl, ( $C_{2-4}$ )alkenyloxycarbonyl, ( $C_{2-4}$ )alkenyloxycarbonyl, ( $C_{1-4}$ )alkyl or ( $C_{2-4}$ )alkenyl and optionally further substituted by ( $C_{1-4}$ )alkyl or ( $C_{2-4}$ )alkenyl;

each x is independently 0, 1 or 2

n is 0 and AB is NR<sup>11</sup>CO, CO-CR<sup>8</sup>R<sup>9</sup>, CR<sup>6</sup>R<sup>7</sup>-CO, NHR<sup>11</sup>SO<sub>2</sub>, CR<sup>6</sup>R<sup>7</sup>-SO<sub>2</sub> or CR<sup>6</sup>R<sup>7</sup>-CR<sup>8</sup>R<sup>9</sup>, provided that R<sup>8</sup> and R<sup>9</sup> are not optionally substituted hydroxy or amino and R<sup>6</sup> and R<sup>8</sup> do not represent a bond: or n is 1 and AB is NR<sup>11</sup>CO, CO-CR<sup>8</sup>R<sup>9</sup>, CR<sup>6</sup>R<sup>7</sup>-CO, NR<sup>11</sup>SO<sub>2</sub>, CONR<sup>11</sup>, CR<sup>6</sup>R<sup>7</sup>-CR<sup>8</sup>R<sup>9</sup>, O-CR<sup>8</sup>R<sup>9</sup> or NR<sup>11</sup>-CR<sup>8</sup>R<sup>9</sup>;

provided that R<sup>6</sup> and R<sup>7</sup>, and R<sup>8</sup> and R<sup>9</sup> are not both optionally substituted hydroxy or amino;

## and wherein:

each of R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup> and R<sup>9</sup> is independently selected from: H; (C<sub>1-6</sub>)alkoxy; (C<sub>1-6</sub>)alkylthio; halo; trifluoromethyl; azido; (C<sub>1-6</sub>)alkyl; (C<sub>2-6</sub>)alkenyl; (C<sub>1-6</sub>)alkoxycarbonyl; (C<sub>1-6</sub>)alkylcarbonyl; (C<sub>2-6</sub>)alkenyloxycarbonyl; (C<sub>2-6</sub>)alkenyloxycarbonyl; (C<sub>2-6</sub>)alkenyloxycarbonyl; hydroxy, amino or aminocarbonyl optionally substituted as for corresponding substituents in R<sup>3</sup>; (C<sub>1-6</sub>)alkylsulphonyl; (C<sub>2-6</sub>)alkenylsulphonyl; or (C<sub>1-6</sub>)aminosulphonyl wherein the amino group is optionally substituted by (C<sub>1-6</sub>)alkyl or (C<sub>2-6</sub>)alkenyl; or R<sup>6</sup> and R<sup>8</sup> together represent a bond and R<sup>7</sup> and R<sup>9</sup> are as above defined;

 $\mathsf{R}^{10}$  is selected from (C<sub>1-4</sub>)alkyl; (C<sub>2-4</sub>)alkenyl and aryl any of which may be optionally substituted by a group  $\mathsf{R}^{12}$  as defined above; carboxy; aminocarbonyl wherein the amino group is optionally substituted by hydroxy, (C<sub>1-6</sub>)alkyl, (C<sub>2-6</sub>)alkenyl, (C<sub>1-6</sub>)alkylsulphonyl, trifluoromethylsulphonyl, (C<sub>2-6</sub>)alkenylsulphonyl, (C<sub>1-6</sub>)alkoxycarbonyl, (C<sub>1-6</sub>)alkylcarbonyl, (C<sub>2-6</sub>)alkenyloxycarbonyl or (C<sub>2-6</sub>)alkenylcarbonyl and optionally further substituted by (C<sub>1-6</sub>)alkyl or (C<sub>2-6</sub>)alkenyl; and

R<sup>11</sup> is hydrogen; trifluoromethyl,  $(C_{1-6})$ alkyl;  $(C_{2-6})$ alkenyl;  $(C_{1-6})$ alkoxycarbonyl;  $(C_{1-6})$ alkylcarbonyl; or aminocarbonyl wherein the amino group is optionally substituted by  $(C_{1-6})$ alkoxycarbonyl,  $(C_{1-6})$ alkylcarbonyl,  $(C_{2-6})$ alkenylcarbonyl,  $(C_{2-6})$ alkenylcarbonyl,  $(C_{1-6})$ alkyl or  $(C_{2-6})$ alkenyl and optionally further substituted by  $(C_{1-6})$ alkyl or  $(C_{2-6})$ alkenyl;

or where one of R<sup>3</sup> and R<sup>6</sup>, R<sup>7</sup>, R<sup>8</sup> or R<sup>9</sup> contains a carboxy group and the other contains a hydroxy or amino group they may together form a cyclic ester or amide linkage.

- 18. (New) A compound according to claim 17 wherein R<sup>A</sup> is optionally substituted isoquinolin-5-yl, quinolin-8-yl, thieno[3,2-b]pyridin-7-yl, 2,3-dihydro-[1,4]dioxino[2,3-b]pyridin-8-yl, quinoxalin-5-yl, isoquinolin-8-yl, [1,6]-naphthyridin-4-yl, 1,2,3,4-tetrahydroquinoxalin-5-yl or 1,2-dihydroisoquinoline-8-yl..
- 19. (New) A compound according to claim 17 wherein R<sup>1</sup> is H, methoxy, methyl, cyano or halogen and R<sup>1a</sup> is H.
- 20. (New) A compound according to claim 17 wherein R<sup>3</sup> is hydrogen; optionally substituted hydroxy; optionally substituted amino; halogen; (C<sub>1-4</sub>)alkoxycarbonyl; CONH<sub>2</sub>; 1-hydroxyalkyl; CH<sub>2</sub>CO<sub>2</sub>H; CH<sub>2</sub>CONH<sub>2</sub>; -CONHCH<sub>2</sub>CONH<sub>2</sub>; 1,2-dihydroxyalkyl; CH<sub>2</sub>CN; 2-oxo-oxazolidin-5-yl; or 2-oxo-oxazolidin-5-yl(C<sub>1-4</sub>alkyl).
- 21. (New) A compound according to claim 17 wherein n is 0 and A and B are both CH<sub>2</sub>, A is CHOH and B is CH<sub>2</sub> or A is NH and B is CO.
- 22. (New) A compound according to claim 17 wherein -U- is -CH<sub>2</sub>-.
- 23. (New) A compound according to claim 17 wherein the heterocyclic ring (A) having 8-11 ring atoms including 2-4 heteroatoms of which at least one is N or  $NR^{13}$  in which  $Y^2$  contains 2-3 heteroatoms, one of which is S and 1-2 are N, with one N bonded to  $X^3$  or the heterocyclic ring (A) has ring (a) aromatic selected from optionally substituted benzo and pyrido and ring (b) non aromatic and  $Y^2$  has 3-5 atoms, including a heteroatom bonded to  $X^5$  selected from O, S or  $NR^{13}$ , where  $R^{13}$  is other than hydrogen, and NHCO bonded via N to  $X^3$ , or O bonded to  $X^3$ .
- 24. (New) A compound according to claim 17 wherein R<sup>5</sup> is selected from: 3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-yl 3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazin-6-yl 7-chloro-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazin-6-yl 7-fluoro-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazin-6-yl 2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-yl.

25. (New) A compound according to claim 17 selected from: 4-(2-{4-[(3-Oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-ylmethyl)-amino]-piperidin-1-yl}-ethyl)-quinoline-6-carbonitrile 6-({(3R,4S)-3-Fluoro-1-{(R)-2-hydroxy-2-(2methoxy-quinolin-8-yl)-ethyl]-piperidin-4-ylamino}-methyl)-4H-pyrido[3,2b][1,4]thiazin-3-one 6-({(3S,4R)-3-Fluoro-1-[(R)-2-hydroxy-2-(2-methoxy-quinolin-8-yl)-ethyl]-piperidin-4vlamino}-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one 6-({(3R,4R)-3-Hydroxy-1-[(R)-2-hydroxy-2-(2-methoxy-quinolin-8-yl)-ethyl]-piperidin-4-ylamino}-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one 6-({(3S,4S)-3-Hydroxy-1-[(R)-2-hydroxy-2-(2-methoxy-quinolin-8-yl)-ethyl]-piperidin-4-ylamino}-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one 6-({(3R,4S)-1-[2-(2,3-Dihydro-[1,4]dioxino[2,3-f]quinolin-10-yl)-ethyl]-3-fluoropiperidin-4-ylamino}-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one 6-{[(1-{(2R/S)-2-hydroxy-2-[3-(methyloxy)-5-quinoxalinyl]ethyl}-4piperidinyl)amino]methyl}-2H-pyrido[3,2-b][1,4]thiazin-3(4H)-one (1R/S)-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)amino]-1-piperidinyl}-1-[3-(methyloxy)-5-quinoxalinyl]ethanol {1-[2-(9-Chloro-2,3-dihydro-[1,4]dioxino[2,3-f]quinolin-10-yl)-ethyl]-piperidin-4-yl}-(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amine 6-{[(1-{2-hydroxy-2-[2-(methyloxy)-8-quinolinyl]ethyl}-4-piperidinyl)amino]methyl}-2H-pyrido[3,2b][1,4]oxazin-3(4H)-one 6-[({1-[2-(4-quinolinyl)ethyl]-4-piperidinyl}amino)methyl]-2H-pyrido[3,2-b][1,4]thiazin-3(4*H*)-one 4-[2-(3-hydroxy-4-{[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6yl)methyl]amino}-1-piperidinyl)ethyl]-6-quinolinecarbonitrile (isomer E2) 4-[2-(3-hydroxy-4-{[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6yl)methyl]amino}-1-piperidinyl)ethyl]-6-quinolinecarbonitrile (isomer E2) 4-[2-(3-hydroxy-4-{[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6yl)methyl]amino}-1-piperidinyl)ethyl]-6-quinolinecarbonitrile(E1 isomer) 4-[2-(3-hydroxy-4-{[(3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazin-6yl)methyl]amino}-1-piperidinyl)ethyl]-6-quinolinecarbonitrile(E1 isomer) or a pharmaceutically acceptable derivative thereof.

- 26. (New) A method of treatment of bacterial infections in mammals, particularly in man, which method comprises the administration to a mammal in need of such treatment an effective amount of a compound according to claim 17.
- 27. (New) A pharmaceutical composition comprising a compound according to claim 17, and a pharmaceutically acceptable carrier.

28. (New) A process for preparing a compound of formula (I) according to claim 17, or a pharmaceutically acceptable derivative thereof, which process comprises reacting a compound of formula (IV) with a compound of formula (V):

$$(IV) \qquad \qquad Y - (CH_2)_n - N \xrightarrow{2 \downarrow 3} Q^2$$

$$(V) \qquad \qquad (V)$$

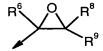
wherein n is as defined in formula (I);  $Z^{1'}$ ,  $Z^{2'}$ ,  $Z^{3'}$ ,  $R^{1'}$ , and  $R^{3'}$  are  $Z^{1}$ ,  $Z^{2}$ ,  $Z^{3}$ ,  $R^{1}$ , and  $R^{3}$  as defined in formula (I) or groups convertible thereto;  $Z^{4}$  and  $Z^{5}$  are as defined in formula (I);

 $Q^1$  is  $NR^2'R^4'$  or a group convertible thereto wherein  $R^2'$  and  $R^4'$  are  $R^2$  and  $R^4$  as defined in formula (I) or groups convertible thereto and  $Q^2$  is H or  $R^3'$  or  $Q^1$  and  $Q^2$  together form an optionally protected oxo group;

- (i) X is A'-COW, Y is H and n is 0;
- (ii) X is  $CR^6=CR^8R^9$ , Y is H and n is 0;
- (iii) X is oxirane, Y is H and n is 0;
- (iv) X is N=C=O and Y is H and n is 0;
- (v) one of X and Y is CO<sub>2</sub>R<sup>y</sup> and the other is CH<sub>2</sub>CO<sub>2</sub>R<sup>x</sup>;
- (vi) X is  $CHR^6R^7$  and Y is  $C(=0)R^9$ ;
- (vii) X is  $CR^7 = PR^2$ 3 and Y is  $C(=0)R^9$  and n=1;
- (viii) X is  $C(=0)R^7$  and Y is  $CR^9 = PR^2_3$  and n=1;
- (ix) Y is COW and X is NHR<sup>11</sup>, NCO or NR11'COW and n=0 or 1 or when n=1 X is COW and Y is NHR<sup>11</sup>, NCO or NR11'COW;
- (x) X is  $NHR^{11}$  and Y is  $C(=0)R^8$  and n=1;
- (xi) X is  $NHR^{11}$  and Y is  $CR^8R^9W$  and n=1;
- (xii) X is NR<sup>11</sup>'COCH<sub>2</sub>W or NR<sup>11</sup>'SO<sub>2</sub>CH<sub>2</sub>W and Y is H and n=0;
- (xiii) X is CR<sup>6</sup>R<sup>7</sup>SO<sub>2</sub>W and Y is H and n=0;
- (xiv) X is W or OH and Y is CH2OH and n is 1;
- (xv) X is NHR<sup>11'</sup> and Y is SO<sub>2</sub>W or X is NR<sup>11'</sup>SO<sub>2</sub>W and Y is H, and n is 0;
- (xvi) X is W and Y is CONHR<sup>11</sup>;
- (xvii) X is -CH=CH2 and Y is H and n=0;

in which W is a leaving group, e.g. halo, methanesulphonyloxy, trifluoromethanesulphonyloxy or imidazolyl; R<sup>X</sup> and R<sup>Y</sup> are (C<sub>1-6</sub>)alkyl; R<sup>Z</sup> is aryl or

 $(C_{1-6})$ alkyl; A' and NR<sup>11'</sup> are A and NR<sup>11</sup> as defined in formula (I), or groups convertible thereto; and oxirane is:



wherein R<sup>6</sup>, R<sup>8</sup> and R<sup>9</sup> are as defined in formula (I); and thereafter optionally or as necessary converting Q<sup>1</sup> and Q<sup>2</sup> to NR<sup>2</sup>'R<sup>4</sup>'; converting A', Z<sup>1</sup>', Z<sup>2</sup>', Z<sup>3</sup>', R<sup>1</sup>', R<sup>2</sup>', R<sup>3</sup>', R<sup>4</sup>' and NR<sup>11</sup>'; to A, Z<sup>1</sup>, Z<sup>2</sup>, Z<sup>3</sup>, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup> and NR<sup>11</sup>; converting A-B to other A-B, interconverting R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and/or R<sup>4</sup>, and/or forming a pharmaceutically acceptable derivative thereof.